

more money in it than he has asked for.

President Nixon would then have to decide if he will veto the measure and face the results of such action. Federal spending on health manpower train-

ing has risen over the half billion mark in a period of budgetary restraint in most sectors of education and research. The manpower programs before Congress now cost as much as all of the National Science Foundation's opera-

tions and rank in the health field only behind Medicare and Medicaid. So the President now faces a stiff exercise in reconciling his budget problems and his priorities.

—JOHN WALSH

## Urban Health and Environment: A New Approach

*New York.* In the squalid tenements of inner-city slums—where children play in urine-soaked hallways alongside rats and junkies, where crumbling walls fill apartments with choking dust and deadly leaded paint, where often there is no heat in the winter and the plumbing doesn't work—the links between people's housing and their health are all too obvious. Thousands of people enter hospitals each year suffering from conditions ranging from carbon monoxide poisoning to asthma—all possibly resulting from wretched living conditions.

Construction of new housing and attempts at enforcing existing housing codes have done little to solve the problem. In New York City, for example, the number of low-rent units constructed between 1965 and 1968 housed less than one-tenth of the people forced out of tenements after the owners, unable or unwilling to maintain them, had left the buildings to decay. And, according to officials, for every house declared by the city to be abandoned, dozens of others are totally dilapidated, with people still living in them. Categorical health programs such as rat control and lead poisoning prevention—each aimed at a segment of the massive problem—have, by most accounts, accomplished little.

Talk of the environment as more than clean air and protected wildlife, and the use of phrases such as "comprehensive planning for environmental health services" have come into fashion recently. But few of these phrases have been translated into actions that actually improve people's surroundings and health.

At the East Harlem Environmental

Extension Service, a year-old program that has already attracted national attention and may be the prototype of slum renewal efforts across the country, the rhetoric of preventive medicine and environmental improvement has been applied to training men from the East Harlem community to paint walls, repair plumbing, supervise buildings, fix boilers, organize tenants into building associations, and mop up the hallways. Such activities may appear at first sight as less than a dynamic solution to major health problems, but in the opinion of Elihu D. Richter, an associate of the Mt. Sinai Hospital Department of Environmental Medicine and one of the prime movers behind the project, "Large-scale preventive maintenance of tenement housing could do more for the health of East Harlem residents than the services of a thousand doctors."

### Extension Service Model

Modeled after the agriculture extension services that give aid to farmers, the East Harlem program aims at cooperation with the area's landlords by offering them a variety of reasonably priced services that are intended to turn the dilapidated and dangerous tenements into safe and decent places to live.

Sponsors of the extension service, which is a nonprofit corporation, include a variety of groups that have often been at odds with each other in the past—groups such as tenant and landlord organizations, labor unions, and various city departments, as well as the Mt. Sinai School of Medicine.

To date, the program has trained

and employed more than 70 men from the East Harlem area and, under contract for either continuing maintenance or for specific repairs, has serviced more than 40 tenement buildings. Observers with years of experience in East Harlem housing problems estimate that the extension service is directly responsible for saving as many as 20 tenement buildings from total abandonment.

### Funding Difficulties

Despite these successes, the extension service has experienced extraordinary difficulties in obtaining funds. This for a number of reasons, not least of which is the difficulty of health and antipoverty officials in dealing with a program that solves a number of problems at once. According to the program's director, Victor Rivera, an energetic young Puerto Rican with experience in a variety of community affairs and minority labor projects, "The extension service's greatest problem has been our successes. Most antipoverty agencies are massive, self-perpetuating enterprises geared towards failure."

Originally the project, which earns an income from the fees charged landlords of about one-third of its expenses for training and subsidized services, received a 1-year \$200,000 grant given to Mt. Sinai by the city's rat control program to cover the remaining two-thirds of the budget. But city officials refused to renew the grant because, in the words of one official, "our own funds were cut and the extension service is not strictly a rat control program." The program then became a football tossed from agency to agency—job training, welfare, health department, and so on—each of which endorsed the extension service but claimed it was beyond their responsibility. Finally, after considerable prodding by Democratic Representative Herman Badillo, whose district includes East Harlem, and Republican Senator Jacob Javits, both enthusiastic supporters of the program, the Urban Coalition promised the extension of some Model

Cities funds—but these have yet to be allocated. As a result of the shortage of funds, says Rivera, the extension service had to cease training new men and refuse contract offers from the owners of dozens of buildings in the area.

The multifaceted aspect of the extension service is seen most clearly in the training program for the “urban extension agents,” who perform the work of the program. Each man receives 2 months of in-school vocational training and an additional month of field training before beginning full-time, on-the-job training and work. At the Manhattan Vocational and Technical High School in East Harlem, the city’s Board of Education uses federal Labor Department funds to train the men in boiler maintenance, building repair, plumbing, electricity, plastering, painting, and other maintenance skills. At the same time, faculty members at Mt. Sinai and personnel from the city’s Health Department instruct the trainees in the health aspects of their work.

#### Teaching the Significance

“What we do in the training,” explains Richter, who helped set up the curriculum, “is teach the men the significance of their work in terms of improving the health of East Harlem residents.” In explaining, for example, “why a working boiler is so important to the health of the people in your building,” a manual prepared for the course details the physiological effects of cold on the body and the number of illnesses that can be caused by prolonged exposure to the cold. “Some of the men didn’t like to mop,” says Richter, “so we taught them about asthma.” Other aspects of the health course include fire, poisoning, and accident prevention. In each category, instructors give considerable attention to methods that the extension agents can use to instruct the tenants to help themselves. The men have responded enthusiastically to the health course, even requesting additional instruction in subjects such as child abuse, where they thought they might be of help.

Preventive medicine is but one of many offshoots of the extension work in the field. In one building, which was turned over to the extension service by the city after it was abandoned by the owner, there had been no heat for over a year, there was no roof, no door, few windows, and, for several

months, neither hot nor cold water. After reactivating the heat and the plumbing, fixing the roof and the windows, and plastering and painting the apartments, the extension agents organized regular meetings of the buildings’ residents, which evolved into a tenants’ association. The association now watches for people throwing garbage in the yard or the hallways, helps collect the rents, and forms a mechanism for requesting help when new problems appear. Such activities have earned the agents the respect of many members of the community—a factor that the program’s supporters believe to be a key to its success.

“Other minority training programs, if they find a guy a job, send him downtown to be the token Black or Puerto Rican on some big construction job,” says Rivera. “But here the trainee is guaranteed a job, and in his own community.”

The 70 agents trained to date reflect the ethnic makeup of East Harlem—most are Puerto Ricans, with some blacks and a few Italians. While some of the men were experienced in the construction trades, others came to the program from jail, drugs, or the welfare rolls. Despite this disparity of backgrounds, the program has retained over 85 percent of its enrollees—even when the shortage of funds delayed pay checks. In fact, some of the men even left higher-paying jobs for the \$100 a week paid during both training and fieldwork. Explaining this enthusiasm, one of the extension agents told *Science*, “there’s no substitute for the feeling you get when you’re really helping your own people.”

The sense of accomplishment in the work is reflected in the men’s personal lives. An East Harlem social worker reported a typical case of an extension agent who “seems to have a whole new interest and hope in his family” as a result of his work with the extension service. Referring to a second extension agent, the social worker remarked that his “increased sense of pride has begun to affect the entire family—knitting its torn ends together.”

At the heart of the extension service program is the concept that the problems with housing, and hence with health, have fallen into what Richter dubbed “the semi-public domain”—building maintenance that is outside the responsibility of either the

city or the individual tenants. While the program has drawn criticism from some quarters of the antipoverty movement for “catering to slumlords,” Rivera believes that “the only way to get anything accomplished is to deal with everyone involved. Sure,” he said, “there are plenty of landlords who would never fix anything, but the economics of East Harlem are such that, even if a landlord wanted to keep a building in decent shape, the services are either exorbitantly priced or totally unavailable.”

Such attitudes are shared by Ray Galliani, president of the Federation of Lower and Middle Income Property Owners, and a member of the board of directors of the extension service. According to Galliani, the landlords of at least 200 buildings in East Harlem would take advantage of the extension service—if the facilities and manpower were available.

#### Ambitious Plans

Conversations with the director and the employees of the extension service reveal elaborate plans to turn the program into more than a preventive maintenance operation. They foresee, for example, hiring a full-time public health nurse to investigate medical problems and to offer health education in more detail, as well as constructing playgrounds, day-care centers, and a number of other facilities for the community. But for now, because of a chronic lack of funds, they can only perform piecemeal repair work—often scrounging up scrap materials to finish the jobs.

The triple concepts of the extension service—housing maintenance, job training, and preventive medicine—satisfy a number of the critical needs of the ghetto. And at a reasonable price: while it costs a few cents per apartment per day to maintain a building, the city spends as much as \$20 per day to house refugee families from abandoned buildings in “welfare” hotels. Moreover, the controversy in the Forest Hills section of Queens over the construction of public housing indicates the resistance to construction of new low-income housing facilities—even when money is available. But as Richter told *Science*, “Everyone associated with the extension service is tired of hearing how logical we are. What the program needs now is money to do the job it can do.”

—ROBERT J. BAZELL